Part Two:

Urban and Community Forestry

Urban and community forestry addresses the management of tree resources within populated areas

While they may care for individual trees or plots, the primary focus of urban foresters is broader in scope, encompassing management of the entire tree resource base or population of the built-up (urban) area(s) within their jurisdiction.

The Cooperative Forestry Act of 1978 offers a statutory definition of urban and community forestry: "Urban Forestry means the planning, establishment, protection, and management of trees and associated plants, individually, in small groups, or under forest conditions within cities, their suburbs, and towns."[1] U. S.DA Forest Service guidance amplifies this, defining the management of the urban forest as the "planning for and management of a community's forest resources to enhance the quality of life. The process integrates the economic, environmental, political, and social values of the community to develop a comprehensive management plan for the urban forest."[2]

A distinction in focus and scale is generally acknowledged to exist between *arboriculture*, which concerns itself with the "planting and care of trees and more peripherally ...with shrubs, woody vines, and ground cover plants," and urban forestry.[3] While these closely allied fields both examine aspects of tree culture within human-altered environments, the focus of arborists is generally on care of an individual tree, or care of vegetation on an individual plot or parcel of land (which may or may not be located in an urban area). Urban forestry is concerned with enhancing the vegetation within an entire city or urbanized area. It has a macro-scale focus (metropolitan region) that is acted upon on the micro-scale (individual trees).

1 *Miller, Robert W. Urban Forestry: planning and managing urban greenspaces. 2nd Ed. 1997. p. 35.*
2 *Op. cit. p. 31*
3 Op. cit. p. 34

Urban forestry has increasingly emphasized the economic values of the urban forest as justification for investment and protection measures.

Similarly, urban and community forestry can be distinguished from conventional forestry, or *silviculture*, by its focus on areas where trees are typically a subordinate, as opposed to the predominant, landcover. The practice of traditional forest management often emphasizes the economic values (timber, pulp, etc.) of forest resources, while urban forestry is more interested in the environmental and aesthetic values of trees. However, this distinction has lessened as urban forestry practicioners have documented the economic values of the urban forest as justification for investment and protection measures. While the emphasis of urban forestry is often on protection of trees and re-generation of a urban area's depleted tree stock; conventional forest management stresses conservation integrating both planting and harvesting of trees in order to maximize the overall health and productivity of forests.

Community forestry in rural communities may draw upon both sound silvicultural practices and urban forestry principles to retain forests as productive components of a working landscape.

In urban states such as Rhode Island, where many communities contain a mix of rural forest lands and urban-type environments; it is neither possible nor desirable to define a line distinguishing conventional from urban forestry. Even the state's more rural communities include developed villages and forests impacted by residential development. Management of forests in such communities ideally draws upon the precepts of both urban forestry and sound silvicultural management, as appropriate, to retain productive forests as elements of a working landscape that contributes to both the economy and the character of the community.

From an original focus on trees in parks and on other public lands, the scope of urban forestry has broadened as the profession recognized the pivotal role of privately-owned tree resources in the overall health and productivity of any urban forest. Most definitions of urban forestry now encompass consideration of the entire tree stock--both public and private--within communities, with a recognition that different management approaches may be required for trees on private lands, as opposed to public lands.

The Urban Forestry Movement

While efforts to nurture trees within cities can be traced back to the dawn of urbanism, the birth of urban forestry as a distinct discipline is generally recognized as occurring in the 1960s. The 1962 President's Outdoor Recreation Resources Review Commission Report included urban forestry information. A 1965 White House Conference on National Beauty promoted tree planting as part of a national beautification effort. In 1967, the Citizens Committee on Recreation and Natural Beauty recommended to the President in its landmark report *A Proposed Program for Urban and Community Forestry* that an urban and community forestry program be created within the U.S. Forest Service to provide technical assistance, training, and research. A 1968 Bureau of Outdoor Recreation proposal also supported the concept of federal assistance for urban forestry education and training to communities.

Federal involvement in urban forestry dates back to the 1972 Urban Cooperative Forest Management Act. Funding for state programs was authorized by the 1990 Farm Act.

This growing professional and public interest in urban tree resources culminated in passage of federal legislation in 1972. The Urban Cooperative Forest Management Act amended the Cooperative Forestry Assistance Act of 1950 to authorize the Forest Service to cooperate with the states in providing technical assistance for the "...establishment of trees and shrubs in urban areas, communities, and open spaces."

In 1978, this small beginning was expanded upon by the appropriation of $3.5 million to fund an urban and community forest program. The federal commitment lagged in the 1980s, however, with funding appropriated for urban forestry programs declining to a low of $1.5 million in 1984.

In 1991, the Rhode Island Department of Environmental Management, Division of Forest Environment established Rhode Island's urban and community forestry program.

The 1990 Farm Bill reasserted the federal commitment to urban forestry. It expanded the authority of the Forest Service to work with states on urban forestry and created a 15 member Urban and Community Forestry Advisory Council. Funding for state programs increased to $25 million by 1993. The America the Beautiful Act, also passed in 1990, aimed at planting and improving trees in cities and towns. Funding was provided for each state to create an urban forestry coordinator and establish state urban forestry advisory councils.

In 1991, the Rhode Island Department of Environmental Management, Division of Forest Environment established an urban and community forestry program and appointed a full-time urban and community forestry program coordinator.

Principles and Practices of Urban Forestry

Urban forestry programs vary with the communities that establish them. While no two programs are exactly alike, most successful programs include the following fundamentals:

- *Planning:* Planning is a fundamental component of successful urban forestry programs. Strategic planning is needed to establish the overall goals, design, and work plan of the urban forest program. Urban forestry concerns should also be reflected in a community's comprehensive plan, and in shorter-range implementation or area/site specific plans. Management plans should define the overall scope, methodology and responsibilities for enhancing and maintaining the urban forest.

- *Resource Inventory:* Often undertaken as part of the planning phase, a comprehensive assessment or inventory of the community's tree resources is a fundamental starting place for most programs. Inventories can employ highly elaborate methods, involving computers and aerial photography or satellite imagery, or they can rely on simpler techniques, such as a windshield survey of street trees. All inventories should provide basic data on the locations, numbers, types (species), and to the extent possible, condition of a community's trees. Inventories often focus initially on trees on the public estate (park and street trees); but increasingly, the availability of computer/remote sensing technologies are allowing communities to conduct comprehensive inventories of trees on both public and private lands.

Urban forestry programs typically include the following elements:

- **Program Planning**
- **Tree Inventories**
- **Tree Planting**
- **Tree Maintenance**
- **Tree Preservation**
- **Public Education**

- *Tree Planting*: Virtually all urban forestry programs include a planting component to help restore the diversity, density, and vitality of the urban forest and insure its sustainability. Programs may make available seedlings or nursery-grown tree stock to citizens groups or neighborhood associations for planting in public greenspaces, along streets, or, under certain conditions, on private properties. A local agency may assume responsibility for all aspects of the planting program, or operate partnership programs that seek donations or dedications of memorial trees from private individuals to help defray the costs of the planting program. Planting programs should be directed by the overall program plan which identifies available and culturally-suitable sites. Meeting specific needs for replacement of certain species, expanding the species and age diversity of the tree stock, and planting in tree-deficient areas of the community are additional considerations. Planting programs should avoid planting in unviable sites to insure that investments in tree resources will provide long-term benefits.

- *Tree Maintenance:* Maintaining the existing tree stock of the community is the most traditional component of urban forestry programs. Indeed, prior to the definition of urban forestry as a discipline, many communities had tree wardens or arborists assigned to maintain trees on public property. Utility companies often cooperate with these efforts or have their own programs. Well-designed maintenance components address the needs of the urban forest and on a systematic basis; encompassing watering newly-planted trees until they are established, correctional pruning the third year after planting, mulching, pruning for pedestrain, sign, and building clearance, hazard pruning, removals, and stump grinding.

- *Tree Conservation*: As the field of urban forestry has matured, its proponents have come to realize that without a proactive conservation component, urban forests face continued decline through tree loss to development pressures. Planting street trees to replace those lost to disease or age is not sufficient to stem the wholesale loss of trees on lands cleared for new development. A holistic approach requires that community programs examine tree loss attributable to land use conversion, and devise cooperative strategies for working with landowners and developers to mitigate tree losses through protection and replacement standards. Urban forest managers must be versed in the operation of zoning and related ordinances that control building and development in their communities to advocate effectively for tree protection measures. In suburban and rural communities, regulations supporting a sustainable forest industry may also support community forest conservation goals.

- *Education:* Most successful urban forestry programs recognize the need to develop public understanding of their program goals. Citizen awareness of the benefits provided by the urban forest translates into critical public support for protection measures, participation in volunteer activities such as tree planting and stewardship, and support for devoting public funds to urban forest program needs. To effect greater public recognition of the values of the urban forest, and support for their perpetuation, urban foresters must be knowledgeable about public educational techniques and skillful in media relations in order to succeed in getting the urban forestry message out and properly understood. Increasingly, the discipline recognizes its responsibility to reach out and educate the public concerning the necessity for investing in the urban forest, and in the proper procedures for managing and improving community forest resources.